Evaluation of Long-term Behavior by Finite Element Method of Rail Yard Embankment on Soft Ground

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Since Kumamoto railcar depot for Kyushu Shinkansen is under construction on a soft clayey layer, it was necessary to adopt an accelerated consolidation method for its construction. Therefore, considering various aspects i.e. construction schedule, cost factor, and possible adverse effects susceptible to adjacent structures in this area, adoption of pre-loading method and vacuum consolidation method for the construction anticipated. In addition, an experimental embankment applying the accelerated consolidation method was constructed, and effects and adverse effects at the subject environment have been evaluated according to the said method.

In this study, we evaluated parameters as obtained previously and the feasibility of modeling of the vacuum consolidation method by feedback analysis based on substantial data.